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(54) **SYSTEM AND METHOD FOR ALLOCATING BANDWIDTH FOR A CALL**

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(52) **U.S. Cl.** **370/395**; 370/468
(58) **Field of Search** 370/395, 396, 370/397, 398, 399, 465, 468, 400, 401, 409

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(57) **ABSTRACT**

A system and method for allocating bandwidth in an asynchronous transfer mode (ATM) system under-allocates bandwidth in virtual paths for virtual path groups between ATM devices. A bandwidth allocation platform manages the virtual paths in the ATM system to control allocation and to prevent congestion, while providing efficient utilization of the bandwidth within the ATM system. The bandwidth allocation system under-allocates virtual paths for virtual path groups that require additional bandwidth to make connections for calls. When a connection is selected on the under-allocated virtual path, the virtual path may use bandwidth from another virtual path in the virtual path group or from a virtual path in another virtual path group if needed. A communication device transports user communications and call signaling for a call. A signaling processor processes the call signaling to select a connection in one of the under-allocated virtual paths for the call over the virtual path group. An interworking unit interworks the user communications from the format in which the user communications are received from the communication device to asynchronous transfer mode cells that identify the selected connection.

104 Claims, 10 Drawing Sheets